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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,527	10/16/2003	V.S. Meenakshi Sundaram	Serie 6057	3996
7590	07/14/2008	Linda K. Russell, Patent Counsel Air Liquide Suite 1800 2700 Post Oak Blvd. Houston, TX 77056	EXAMINER PHASGE, ARUN S	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 07/14/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/686,527	SUNDARAM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Arun S. Phasge	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 May 2008.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-7, 11-16, 18-34 and 36-56 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-7, 11-16, 18-34, 36-56 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 1-7, 11-16, 18-29, 34, 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. (Barker), U.S. Patent 3,860,479 in view of Naeem, U.S. Patent 6,193,832 or Hatano et al. (Hatano), U.S. Patent 5,919,726.

Barker discloses the claimed method and system for generating polysulfide in pulping liquor comprising the sodium sulfide, providing the claimed oxidation promoter (see Abstract). The reference further discloses the claimed substrate and coating the oxidation promoter (see col. 2, lines 34-40). The patent further teaches the use of the same type of oxygen containing gas (see abstract). The patent teaches the same types of substrates and oxidation promoters (see col. 2, lines 34-68). The oxidation promoter may be mobile or fixed (see col. 2, lines 20-40). The temperature disclosed would be within the range claimed (see claim 11).

The Barker patent fails to disclose some of the modifications to the shape of the reactor and oxidation promoter elements. The invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Smith to change the shape of the reactor, because such modification to shape has been well settled to be within the purview of the ordinary artisan, unless the change produces an unexpected result.

The Barker patent while disclosing the coating of the oxidant promoter onto the substrate fails to disclose the use of the coating material such that the oxidation promoter is adhered by the coating material to the substrate.

The Naeem patent is cited to show the use of a coating material to adhere a catalyst to a substrate, wherein the catalyst, coating layer and substrate are the same as the layers claimed (see claims 1-17).

Likewise, the Hatano patent is cited to show the use of a coating material to adhere a catalyst to a substrate, wherein the catalyst, coating layer and substrate are the same as the layers claimed (see claims 1-6).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Barker patent with the teachings of the Naeem or Hatano patents, because both the Naeem and Hatano patent teach the methods used to coat catalysts onto substrates using a coating material as claimed.

Claims 30-33, 36 and 40-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barker in view of Naeem or Hatano as applied to claims above, and further in view of Dorris of record.

The Barker patent does not teach the use of the stirrer as claimed with other structural limitation to the stirrer. The Dorris patent teaches the use of such a reactor to form the polysulfide (see abstract and figures 2-3 and claims 1-13).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of

the Barker to change the shape of the reactor to use the reactor disclosed by Dorris, because the Dorris patent teaches the use of a stirred reactor as claimed to produce polysulfide.

***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Arun S. Phasge/  
Primary Examiner, Art Unit 1795

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